



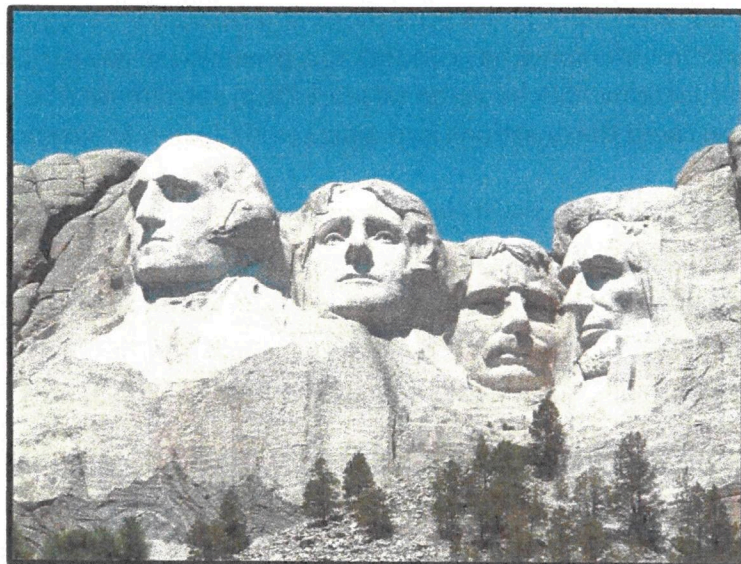
# MOUNT RUSHMORE NATIONAL MEMORIAL

## CLIMATE FRIENDLY PARKS ACTION PLAN

### 2016

#### INTRODUCTION

The National Park Service (NPS) acknowledges that climate change will likely threaten the very cultural and natural resources we strive to preserve. Through the establishment of federal directives, executive orders and NPS policies, the agency is taking action to respond to climate change (CC) through adaptation and mitigation. These directives and guidelines include Federal Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*, as well as NPS policies, plans, and strategies. The primary driver for NPS response to CC is the [Green Parks Plan](#) (GPP), and the NPS Climate Change Response Strategy.



The GPP is intended to organize sustainability implementation objectives into a single strategic plan. The plan includes nine strategic goals and over 34 performance objectives addressing a range of topics in the key categories of sustainability and climate change. The overall objective is to address climate change from a facilities standpoint. The Climate Friendly Parks (CFP) Program directly supports the NPS in reaching goals outlined in the GPP by identifying park specific energy, water, fleet fuel and solid waste management performance targets. This is done by engaging park staff from multiple areas of expertise to develop a CFP Action plan. These areas include:

- Continuously Improve Environmental Performance: The NPS will meet and exceed the requirements of all applicable environmental laws.
- Be Climate Friendly and Climate Ready: The NPS will reduce GHG emissions and adapt facilities at risk from climate change.
- Be Energy Smart: The NPS will improve facility energy performance and increase reliance on renewable energy.
- Be Water Wise: The NPS will improve facility water use efficiency.
- Green Our Rides: The NPS will transform our fleet and adopt greener transportation methods.
- Buy Green and Reduce, Reuse, and Recycle: The NPS will purchase environmentally friendly products and increase waste diversion and recycling.
- Preserve Outdoor Values: The NPS will minimize the impact of facility operations on the external environment.



- Adopt Best Practices: The NPS will adopt sustainable best practices in all facility operations.
- Foster Sustainability Beyond Our Boundaries: The NPS will engage visitors about sustainability and invite their participation.

As a participant in the National Park Service (NPS) Climate Friendly Parks (CFP) program, Mount Rushmore National Memorial (MORU) belongs to a network of parks nationwide that are putting climate friendly behavior at the forefront of park operations and resource management. As part of this program, Mount Rushmore National Memorial has conducted a greenhouse gas (GHG) emission inventory, participated in a climate change and sustainability educational workshop, set climate change mitigation and GHG emission reduction goals, and integrated these actions into a park-wide Green Environmental Management System (GEMS).

The GEMS takes a systematic approach to identifying goals where improvements can be made to address environmental impacts at the park. The GEMS provides a framework for tracking environmental protection and sustainability priorities and details the implementation of these actions. By integrating CFP-related actions into the park's GEMS, Mount Rushmore National Memorial is taking an integrated approach to climate change response and sustainable management of park resources.

#### **ENVIRONMENTAL POLICY & SUSTAINABILITY COMMITMENT STATEMENT**

Mount Rushmore National Memorial is committed to preserving unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The GEMS provides an adaptable framework for success and serves as a positive example of environmental management for the memorial.

MORU, in cooperation with its partners (e.g., concessioners, history association, friend-groups, and partner organizations), will champion protection of the environment and lead sustainability efforts by minimizing and tracking resource consumption; complying with applicable laws and regulations; maintaining effective environmental management teams; reduce, reuse & recycle; reduce greenhouse gases (GHG) in support of the NPS Call to Action and MWR Climate Change Strategy; purchasing environmentally preferable products; preventing pollution; promoting energy conservation and the use of renewable energy where possible; and proactively recognizing and resolving environmental issues.

Our environmental management system puts focus on improving all associated park operations and practices to support environmental excellence and improved sustainability, resulting in real reductions in environmental impacts.



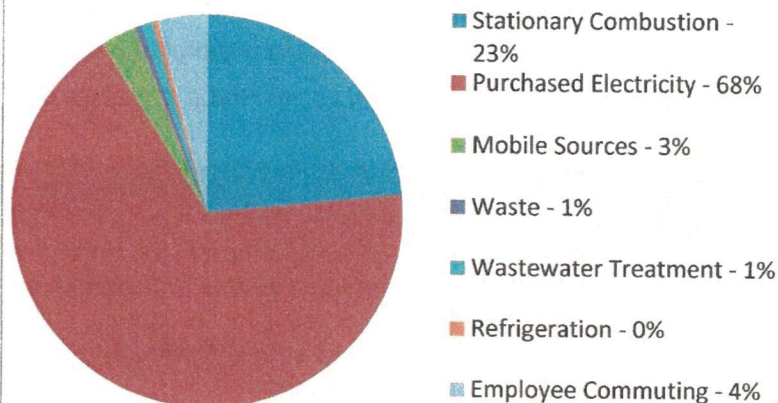
## ACCOMPLISHMENTS

Prior to holding the CFP workshop, Mount Rushmore National Memorial had already started to embark on our sustainability journey by embedding sustainability goals in our GEMS. As part of these efforts, Mount Rushmore National Memorial has taken a number of actions which have reduced our environmental impact. Since 2007, the MORU Team has worked collectively in accomplishing many carbon footprint reducing achievements.

Sustainability Concern	Completed Actions
<b>GHG Emissions: Be Energy Smart, Green Our Rides, Continuously Improve Environmental Performance</b>	<ul style="list-style-type: none"> <li>• Performed energy audits for park buildings</li> <li>• Replaced exterior doors in the Visitor Center, Main Restrooms, and Information Center</li> <li>• Right sized the fleet by reducing the overall number of vehicles and replacing vehicles with smaller and more fuel efficient models</li> <li>• Replaced existing building lighting fixtures with energy efficient lighting and added occupancy sensors</li> <li>• Replaced windows in housing units with new energy efficient windows</li> <li>• Reduced Electrical Consumption by 15% on the Wastewater Centrifuge operation</li> <li>• Promotion of employee car-pooling</li> <li>• Concessions Partner reduced electrical and propane consumption by 21% and 26%</li> <li>• Replaced Sculpture Lighting with energy efficient lighting resulting in a 90% energy reduction</li> <li>• Replaced HVAC Monitoring and Controls and added Variable Frequency Drives</li> <li>• Established HVAC / Building Space Temperature Scheduling and installation of programmable thermostats in park buildings</li> </ul>
<b>Waste: Buy Green and Reduce, Reuse, and Recycle</b>	<ul style="list-style-type: none"> <li>• Measured and developed a baseline for waste generation at the park</li> <li>• Added extra recycling containers throughout the memorial and during special events</li> <li>• Worked with Concessions Partners to recycle paper, cardboard, scrap metals, and other materials</li> <li>• Achieved an overall park solid waste diversion rate of 51%</li> <li>• Recycled all outdated newsletters</li> <li>• Incorporated recycling of building and construction materials in contract documents</li> <li>• Concessions Partner tracks and monitors sustainable cuisine used in food and beverage operations</li> <li>• Concessions Partner has decreased the amount of landfilled solid waste by almost 40% since 2004.</li> </ul>
<b>Education / Communication: Foster Sustainability Beyond Our Boundaries</b>	<ul style="list-style-type: none"> <li>• Held a Climate Friendly Park workshop</li> <li>• Issued Periodic Park Newspaper Articles promoting sustainability</li> <li>• Concessions Partner Communicates a quarterly newsletter called "Sustainabits"</li> <li>• During informal contacts, staff encourages visitors to use existing bottle filling station in managed by concessions partner and also directs visitors to use recycling receptacles.</li> </ul>
<b>Water: Be Water Wise</b>	<ul style="list-style-type: none"> <li>• Reduced and eliminated grounds irrigation</li> <li>• Purchased water bottle filling stations – planned for installation in 2016</li> <li>• Recycled wastewater from carpet cleaning operations – prevented storm water pollution</li> <li>• Initiated design for the replacement of an aging sewer system and sewage lift station suffering from heavy infiltration</li> <li>• Extended Backwash duration and adjusted water treatment plant operations – reducing chemical consumption and backwash waste. Extended filter run time from 22 to 30 minutes.</li> </ul>



### MORU 2014 GHG emissions - Park Operations only (1,658 MTCO<sub>2</sub>E)



#### BASELINE GREENHOUSE GAS EMISSIONS PROFILE

Mount Rushmore National Memorial developed a greenhouse gas inventory for the year 2014 using the Climate Leadership in Parks (CLIP) tool. Greenhouse gas (GHG) emissions from park operations, visitors' vehicles, and other operations within the park totaled 4,790 metric tons of carbon dioxide equivalents (MTCO<sub>2</sub>E). The largest single source of GHG emissions was visitor travel in the park, calculated at 1, 297 MTCO<sub>2</sub>E. Visitors are important to all parks and we always encourage them to come; having these numbers gives us perspective and helps us to focus our efforts on setting a sustainable example. With that in mind, if only park operations (what we control) are considered, purchased electricity is the largest GHG emitter, at 68%. Emissions from stationary source combustion (generators, boilers, etc.) are second highest, at 23%. Having this baseline helps inform the goals and targets we have set and the actions we are taking to meet them.

#### GOALS & ACTIONS

As part of the CFP program, Mount Rushmore National Memorial has developed a number of goals. To help meet these goals, the park will develop annual actions and track them through the GEMS. The first year of those actions are listed out below. We will continue to chart our progress against the goals annually and refine our actions as part of the plan, do, check, and act process.

Goal	GHG Emissions Reduce GHG emissions by 15% by 2020	Climate Change Response Reduce electrical consumption by 8% by 2020	Education Educate 10% of park visitors about climate change and sustainability practices by 2020.
<b>2016 Action Plan</b>	<ul style="list-style-type: none"> <li>Identify and Replace six drinking fountains with water bottle filling stations</li> <li>Research and eliminate Grinder Pumps (electrical consumption) at Wastewater Treatment Plant.</li> <li>Purchase new lids for solid waste and recycling containers to help prevent unwanted waste mixed into recycling</li> </ul>	<ul style="list-style-type: none"> <li>Replace lighting fixtures in Studio and Administration Building; Sustainable Design of lighting replacement in park facilities</li> <li>Install occupancy sensors in Administrative Building to better manage lighting</li> <li>Incorporate sustainability practices through design</li> </ul>	<ul style="list-style-type: none"> <li>Create a park specific climate change message to share with partners and visitors.</li> <li>Replace all exterior windows and doors in the Administration Building</li> <li>Add Recycling container for Housing Residents</li> <li>Create and publish sustainability web page and Facebook posts</li> </ul>



## ROLES, RESPONSIBILITIES, & RESOURCES

The employees of Mount Rushmore National Memorial will work collectively to monitor, communicate, and update sustainability goals for park operations. As a team, employees will continue to work together to identify sustainability and climate change challenges, track progress toward achieving goals, and work with other staff to continually improve operations. Through their leadership, park employees will ensure that sustainability initiatives move forward and that environmental goals and accomplishments are worked toward.



## EDUCATION & COMMUNICATION

By improving communication within Mount Rushmore National Memorial, we are developing an environment that provides guidance and clarity while instilling ownership and support in accomplishing goals and initiatives. Mount Rushmore National Memorial has improved communication amongst employees and visitors through all-employee meetings, park-wide training sessions and periodic newsletters that highlight past and upcoming sustainability events and projects within the park and local region. The newsletter (or a link) is emailed to all employees and posted on the Mount Rushmore National Memorial website.

## CONCLUSION

The elements of our EMS form the foundation of the environmental protection, climate change response, and sustainability work that we will accomplish at the Mount Rushmore National Memorial. We hope that visitors will check back in with us and see how we progress as our program continues to evolve!

## CONTACTS

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Park Superintendent

*Cheryl A. Schreier*

*3-31-2016*

Date

CFP Regional Representative

*[Signature]*

*3-31-2016*

Date

CFP National Representative

*[Signature]*

*4/5/16*

Date

